United States
Environmental Protection
Agency

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Illinois, Indiana,
Michigan, Minnesota,
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EPA

FACT SHEET

PROPOSED PLAN
TEXTILE ROAD SUPERFUND SITE
Ypsilanti, Michigan
August 1997

Introduction

This Proposed Plan summarizes the removal action alternatives that have been considered by the United States Environmental Protection Agency (U.S. EPA) for cleanup of hazardous contamination at the Textile Road **Superfund** * site. The alternatives were evaluated in an Engineering Evaluation/Cost Analysis (EE/CA) Report developed specifically for the Textile Road site. The alternatives in the EE/CA report were evaluated with regard to the estimated amount of contamination present at the site, and the alternative's effectiveness in alleviating the potential health and ecological risks resulting from the presence of the contamination.

The EE/CA report is available in the Administrative Record and the Information Repository (see last page), and should be consulted for detailed information on the development and evaluation of the removal action alternatives. Based on the findings as detailed in the EE/CA report, the U.S. EPA is recommending a cleanup alternative for the contaminated soils and ground water at the Textile Road site. The recommended alternative involves the excavation of on-site materials for disposal at one or more off-site **Resource Conservation Recovery Act** (RCRA) and/or **Toxic Substances Control Act** (TSCA) approved disposal facilities. Soils with **polychlorinated biphenyl** (PCB) contamination greater than 50 mg/kg would be removed from the site for disposal at a TSCA-permitted landfill; soils with PCB contamination greater than 500 mg/kg would be incinerated in a TSCA-permitted incinerator. The excavation, transportation, and disposal of waste from the site will be conducted in compliance with all federal, state, and local regulations. In addition, to assure that the threat is thoroughly addressed, confirmation sampling will be conducted after completion of the cleanup.

Background

The Textile Road site is a 62-acre industrial property located at the southeast corner of Textile Road and Bunton Road in Ypsilanti Township, Washtenaw County, Michigan. The site is bordered to the north by Textile Road, to the west by Bunton Road, to the east by a Ford Motor Company property, and to the south by agricultural property (Figure 1). Three ponds of varying sizes were formed as a result of gravel mining activity that took place at the site. The majority of the land is covered with heavy vegetation, including trees, shrubs and grass. A gravel road permits access to various parts of the site. A cinder block building exists near the north site entrance at Textile Road. Access to the site is restricted by a security fence which completely encloses the site. Entry to the site is controlled at two locked truck gates located on the northern and southern fence lines.

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* Bold-face words are defined in the glossary of this fact sheet.

The site was originally used for agricultural purposes. Ford Motor Company sold the property in 1947. The new owner conducted gravel mining at the site from approximately 1947 through September 1973. Attention was drawn to the site in March 1983 when a local resident informed the Michigan Department of Environmental Quality (MDEQ, formerly Michigan Department of Natural Resources) of the presence of 55-gallon drums at the site.

Site Investigations

Site investigations were performed by the MDEQ and the U.S. EPA beginning in 1983. The site investigations revealed soil, sediment and groundwater contamination. The analysis of soil samples indicated the presence of PCBs, **volatile organic compounds** (VOCs), semi-volatile organic compounds, organic compounds and inorganic compounds. Groundwater samples collected contained VOCs and inorganic compounds, and sediment samples revealed PCB contamination. The contaminants were determined to pose a risk to any person present at the site, including but not limited to trespassers and on-site workers.

In 1983, 40 drums containing oil substances were discovered at the site. Some of these drums were reported to be leaking. Samples collected from the drums and the surrounding soil indicated the presence of PCBs. PCBs were also present in sediment samples. Surface water samples indicated the presence of copper, phenol and zinc. The 55-gallon drums were removed in February 1986. Further site assessment conducted the following month revealed an additional 24 drums containing an oily substance. Samples collected from the drums revealed the presence of PCBs. These drums were removed from the site in 1988 and 1991.

Summary of Site Risks

A risk assessment developed for the Textile Road site includes detailed information on the risks to human health and the environment posed by on-site contamination. The risk assessment is included in the EE/CA report, and is available for review in the Administrative Record and Information Repository.

If not addressed by implementation of an appropriate response action, existing conditions at the Textile Road site could potentially lead to imminent and substantial endangerment of the public health, welfare and the environment. Specifically, the endangerment may be the result of any, or a combination, of the following: a) Actual or potential exposure to hazardous substances by nearby populations, animals, or food chain; b) High levels of hazardous substances in soils and ground water that may migrate; and/or c) No naturally occurring geologic conditions or man-made conditions being present which would prohibit the migration of contaminants and potential exposure of human or ecological receptors.

Because of the presence of ponds on the site, there also appears to be potential for recreational usage such as fishing. Under this scenario, an evaluation of potential risks indicated a present and future threat of direct exposure and ingestion of contaminated soils and ground water for the occasional trespasser and on-site worker.

Summary of Alternatives

The U.S. EPA evaluated the following alternatives to address the contamination at the Textile Road site.

Alternative 1A

Off-Site Disposal: Alternative 1A is the U.S. EPA's recommended alternative for the remediation of on-site contamination. It consists of the excavation of on-site materials for disposal at one or more off-site RCRA and/or TSCA approved facilities. Soils with PCB contamination greater than 50 mg/kg would be removed from the site for disposal at a TSCA permitted landfill; and soils with a PCB contamination greater than 500 mg/kg would be incinerated in a TSCA permitted incinerator. The excavation, transportation, and disposal of waste from the site will be in compliance with all federal, state, and local regulations.

Alternative 1B

On-Site Disposal: This alternative consists of constructing a soil containment vault to completely contain all contaminated soil. The soil vault would consist of low permeability clays and a liner. The liner would be constructed entirely above the water table and would include a leachate detection and leak system to monitor the vault's integrity. The vault would then be capped.

Alternative 2
No Action: This alternative allows the site to exist in its present condition. It provides no remedy for the uncontrolled or threatened release of contamination. It continues to pose a direct contact threat and would aid in the migration of contaminants.

Alternative 3
Limited Action: This alternative relies on institutional controls, such as restricting site access, posting warning and no trespassing signs, and placing limitations on the future land uses of the site property. It limits the direct exposure threat to people from on-site contamination. It does not remove the on-site contamination, nor does it control the possible migration of contaminants.
Alternative 4A
Capping: This alternative involves employing a physical barrier over the contaminants. The purpose of the barrier is to minimize direct contact with contaminants. Capping incorporates placing a liner over the existing soil, and layering different types of soil over the liner. This alternative does not remove the contamination, but rather attempts to confine it.

Alternative 4B
Capping and Ground Water Cutoff Wall: In addition to employing the same methods utilized in Alternative 4A, this alternative includes the installation of a groundwater cutoff wall completely around the capped area. This would isolate the contamination and prevent migration. Any settlement or breach of the cap would likely add stress to the groundwater cutoff wall. Failure of the groundwater cutoff wall has the potential to release contaminants to surrounding soils and groundwater.

Alternative 5A
Solidification/Stabilization and Capping: In addition to employing the same methods utilized in Alternative 4A, this method also incorporates the treatment of all excavated waste materials by solidification/fixation. Solidification/fixation uses a stabilizing agent, such as cement, to prevent direct exposure and the migration of contaminants.

Alternative 5B
Solidification/Stabilization and Capping, and Groundwater Cutoff Wall: In addition to employing the same methods utilized in Alternative 4B, this method also incorporates the treatment of all excavated materials by solidification/fixation.

Alternative 5C
Solvent Extraction, Stabilization/Solidification and Capping: In addition to employing the same methods utilized in Alternative 5A, this method incorporates treatment by solvent extraction. Solvent extraction is a method of segregating the waste into 3 streams: solids, water and oil. Organic contaminants, such as PCBs, are concentrated in the oil stream. The oil extracted would be shipped off-site to an approved disposal facility. The water product would be treated if necessary, and disposed of at an approved facility. This process does not address inorganic contamination. The solids would require solidification/stabilization prior to backfill and capping on site.

Alternative 5D
Gas-Phase Chemical Reduction, Stabilization/Solidification and Capping: In addition to employing the same methods utilized in Alternative 5A, this alternative incorporates the treatment of the waste media by gas-phase chemical reduction (GPCR). The GPCR process first removes organic contaminants through thermal desorption--a process of heating the contamination in the presence of hydrogen to produce smaller and lighter hydrocarbons, which are further treated. This

process does not address inorganic contamination and would therefore require solidification/stabilization prior to being backfilled on site and capped.

Alternative 5E
Low Temperature Thermal Desorption, Solidification/Stabilization and Capping: In addition to employing the same methods utilized in Alternative 5A, this Alternative incorporates low temperature thermal desorption (LTTD). LTTD is a technology developed as an ex-situ method of treating wastes containing volatile organic contaminants. Heating the waste materials causes volatilization of VOCs, which are then separated from the non-hazardous materials for further treatment and disposal. LTTD requires that additional technologies be employed to address inorganic contamination, such as solidification/stabilization and capping prior to backfilling.

Alternative 5F
On-Site Incineration Stabilization/Solidification and Capping: In addition to employing the methods utilized in Alternative 5A, this alternative incorporates the addition of on-site incineration. After processing, the waste would be incinerated on site with a portable incineration unit. The remaining solids would contain inorganic contamination that would require stabilization/solidification prior to being backfilled on site and capped.

Evaluation of Alternatives

The U.S. EPA used three criteria to compare the cleanup alternatives in the EE/CA and to recommend a practical cleanup alternative for the contamination at the Textile Road site. The evaluation criteria were:

Effectiveness: This criterion refers to the ability of a cleanup alternative to meet the objectives within the scope of the removal action, especially with regard to the protection of public health and the environment.

Implementability: This criterion considers the technical and administrative feasibility of implementing the cleanup alternative, such as the availability of goods and services.

Cost: This criterion considers estimated capital, operation, and maintenance costs, as well as present worth costs. Present worth costs is an alternative's total cost over time in terms of today's dollars.
The U.S. EPA believes that Alternative 1A may represent the best balance of the three criteria. As a result, the U.S. EPA is recommending Alternative 1A, excavation and off-site disposal of contaminated materials. The U.S. EPA will use the soil cleanup criteria established by the MDEQ for commercial/industrial cleanup. After the soil cleanup is completed, the U.S. EPA will monitor the ground water from the site to confirm the cleanup's effectiveness.

Next Steps

The U.S. EPA will hold a public meeting to discuss the proposed plan for the Textile Road site at 7 p.m. on Wednesday, August 13, 1997, at the Ypsilanti Civic Center, 7200 South Huron Drive, in Ypsilanti, Michigan.

The U.S. EPA will accept and consider all comments received at the public meeting and during a 30-day public written comment period (July 30 to August 28, 1997) before developing a final site cleanup plan. All comments received during the comment period will be addressed in a document called a responsiveness summary. The cleanup plan will be described in a final decision document that, along with the responsiveness summary, will be made public this fall.

After the U.S. EPA selects a final cleanup plan for the Textile Road site, it will meet with the parties believed to be responsible for the site contamination and request that they conduct and fund the site cleanup. Following negotiations with these parties, the cleanup plan will be designed and implemented, either by the U.S. EPA, or by the responsible parties with U.S. EPA oversight. If the parties responsible for the contamination at the site are unable or unwilling to negotiate an agreement with the U.S. EPA to carry out the cleanup plan, the U.S. EPA will re-evaluate its legal and funding options under Superfund.

Glossary

Polychlorinated biphenyls (PCBs) are a family of organic (carbon-containing) compounds that that are extremely persistent in the environment; they do not break down into less harmful chemicals over a long period of time. PCBs may enter the food chain and be consumed by humans. If ingested, they are stored in the fatty tissues of animals and humans, and are not extracted with normal body waste. These compounds have no smell or taste and exist as either oily liquids or solids. Health effects that may result from exposure to PCBs include skin irritations (rashes and acne) and irritation to the nose and lungs. Long-term exposure to PCBs can cause liver damage and has been shown to cause cancer in laboratory animals.

Polynuclear aromatic hydrocarbons (PAHs) are a group of semi-volatile compounds that are formed as a result of the incomplete combustion of hydrocarbons. PAHs occur commonly in the environment, originating from both natural and man-made sources. PAHs are often formed as a by-product of plastics, coal, oil, garbage, or other organic substances. Some PAHs are highly toxic and may cause some forms of cancer.

Resource Conservation and Recovery Act is a Federal law that establishes a regulatory system for tracking hazardous wastes from the time the waste is generated to its final disposal. RCRA also requires safety standards for management of hazardous waste and sets standards for transportation, treatment, storage, and disposal of hazardous wastes.

Superfund is a Federal program that operates under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This law authorizes the Federal government to respond directly to releases (or threatened releases) of hazardous substances that may endanger public health, welfare, or the environment. The U.S. EPA is responsible for managing Superfund.

Toxic Substances Control Act is a Federal law that governs the manufacturing, importing, distributing, and processing of all toxic chemicals. TSCA requires that all such chemicals be inspected and approved by the U. S. EPA.

Volatile organic compounds (VOCs) are a type of organic compound that tend to change from a liquid to a gas at relatively low temperatures when exposed to air. As a result of this tendency, VOCs disappear more rapidly from surface water than from ground water. Since ground water does not usually come in contact with air, VOCs are not easily released and can be present in ground water that is being used for drinking water, posing a threat to human health. Some VOCs are believed to cause cancer in humans.

FOR MORE INFORMATION

Your input on the U.S. EPA's recommended cleanup plan for the Textile Road site is important. Public comments will assist the U.S. EPA in selecting the final cleanup plan. Comments must be post marked by August 28, 1997. If you have questions about the comment period, contact Denise Gawlinski at (312) 886-9859, or toll-free at 1-800-621-8431, or via E-mail at "gawlinski.denise@epamail.epa.gov".

The EE/CA Report and other site-related documents relating to the Textile Road site are available for review in the local information repository, which has been established at the location listed below:

Ypsilanti District Library
229 West Michigan
Ypsilanti, Michigan
(313) 482-4110

An Administrative Record, which contains the information upon which the selection of the recommended alternative will be based, has also been established at the Ypsilanti District Library and at the U.S. EPA Region 5 office in Chicago. For additional information about this site, you may contact the following U.S. EPA and MDEQ representatives:

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Office of Public Affairs P-19J
U.S. EPA, Region 5
77 West Jackson Boulevard
Chicago, IL 60604
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Office of Superfund
U.S. EPA Region 5
9311 Grog Road
Grosse Ile, MI 48138
(313) 692-7685

Vicki Katko
Michigan Department of
Environmental Quality
Jackson State Office Building
301 East Louis Glick
Jackson, MI 49201
(517) 789-7914

TEXTILE ROAD SUPERFUND SITE
CLEANUP ALTERNATIVES

ALTERNATIVE	DESCRIPTION	PRESENT WORTH COST (in millions of dollars)	TIME FRAME (months)
1A	Off-Site Disposal	1.36	6
1B	On-Site Disposal	2.17	12 - 24
2	No Action	.39	3 - 6
3	Limited Action	.57	6 - 12
4A	Capping	1.43	6 - 12
4B	Capping and Ground Water Cutoff Wall	1.99	12 - 24
5A	Solidification/Stabilization and Capping	4.06	12
5B	Solidification/Stabilization and Capping and Ground Water Cutoff Wall	4.51	12 - 24
5C	Solvent Extraction, Stabilization/Solidification and Capping	13.32	12 - 24
5D	Gas-Phase Chemical Reduction, Stabilization/Solidification and Capping	21.65	12 - 24
5E	Low Temperature Thermal Desorption, Solidification/Stabilization and Capping	25.01	12 - 24
5F	On-Site Incineration, Stabilization/Solidification and Capping	32.74	12 - 24